What is claimed is:

1. A controlling system for use with variable attenuators disposed in a WDM transmitting apparatus for adding and dropping a WDM optical signal, the controlling system comprising:

a plurality of variable attenuators for adjusting optical power levels of optical signal components of individual wavelengths demultiplexed from the WDM optical signal;

a plurality of output optical level detecting units detecting the output optical levels of the plurality of variable attenuators; and

a feed-back circuit for controlling adjustments of the optical attenuation amounts of the plurality of variable attenuators,

wherein optical signal components of individual wavelengths whose power levels have been adjusted by the plurality of variable attenuators are multiplexed and thereby a WDM optical signal is generated and transmitted.

2. The controlling system for use with the variable attenuators as set forth in claim 1,

wherein a target value is set to the feed-back

circuit, the target value representing the optical power level of each of the optical signal components of individual wavelengths.

3. The controlling system for use with the variable attenuators as set forth in claim 1,

wherein when an optical signal component of a wavelength of the WDM optical signal is disconnected, the feed-back circuit sets the attenuation amount of a variable attenuator assigned to the optical signal component to a predetermined value.

4. The controlling system for use with the variable attenuators as set forth in claim 3,

wherein the predetermined value is as low as an optical signal that is transmitted from the WDM transmitting apparatus corresponding to an abrupt optical input does not destroy a WDM transmitting apparatus disposed on the next stage and as the output optical level detecting unit can detect an output optical level of the variable attenuator corresponding to the abrupt optical input.

5. The controlling system for use with the

variable attenuators as set forth in claim 1,

wherein the feed-back circuit maximizes the attenuation amount of a variable attenuator assigned to an optical signal component of an unused wavelength.

6. A controlling method for use with variable attenuators disposed in a WDM transmitting apparatus for adding and dropping a WDM optical signal, the controlling method comprising:

causing a plurality of variable attenuators to adjust optical power levels of optical signal components of individual wavelengths demultiplexed from the WDM optical signal;

causing a plurality of output optical level detecting units to detect the output optical levels of the plurality of variable attenuators; and

causing a feed-back circuit to control adjustments of the optical attenuation amounts of the plurality of variable attenuators,

wherein optical signal components of individual wavelengths whose power levels have been adjusted by the plurality of variable attenuators are multiplexed and thereby a WDM optical signal is generated and transmitted.

7. The controlling method for use with the variable attenuators as set forth in claim 6,

wherein a target value is set to the feed-back circuit, the target value representing the optical power level of each of the optical signal components of individual wavelengths.

8. The controlling method for use with the variable attenuators as set forth in claim 7,

wherein when an optical signal component of a wavelength of the WDM optical signal is disconnected, the feed-back circuit sets the attenuation amount of a variable attenuator assigned to the optical signal component to a predetermined value.

9. The controlling method for use with the variable attenuators as set forth in claim 8,

wherein the predetermined value is as low as an optical signal that is transmitted from the WDM transmitting apparatus corresponding to an abrupt optical input does not destroy a WDM transmitting apparatus disposed on the next stage and as the output optical level detecting unit can detect an

output optical level of the variable attenuator corresponding to the abrupt optical input.

10. The controlling method for use with the variable attenuators as set forth in claim 6,

wherein the feed-back circuit maximizes the attenuation amount of a variable attenuator assigned to an optical signal component of an unused wavelength.